

Title (en)

PERCEPTUALLY DRIVEN ERROR CORRECTION FOR VIDEO TRANSMISSION

Title (de)

WAHRNEHMUNGSBETRIEBENE FEHLERKORREKTUR FÜR VIDEOÜBERTRAGUNG

Title (fr)

CORRECTION D'ERREURS AXÉE SUR LA PERCEPTION POUR LA TRANSMISSION VIDÉO

Publication

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Application

EP 13773306 A 20130927

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Abstract (en)

[origin: EP2713616A1] The invention presents a method of applying forward error correction selectively to an encoded video sequence before it is transmitted. Forward error correction is targeted at portions of the video that will be most noticeably affected by any potential packet loss during transmission. The targeting is done using a perceptual error sensitivity model, which effectively maps an error visibility rating onto content-dependent and content-independent properties associated with a given portion video. The encoder and decoder settings will be used for the actual video sequence where forward error correction is to be applied are used in the training of the model, as they have a significant effect on the perception of any errors. Then, to adaptively apply forward error correction, a selected video sequence is encoded, and the encoded bitstream is analysed to determine content-independent properties. A decoded version of the video sequence is also analysed to determine content-dependent properties being determined. The content-independent and content-dependent properties are used in conjunction with the perceptual error sensitivity model to predict which slices of the video sequence will be most significantly affected perceptually by packet loss, and thus target FEC to those areas accordingly.

IPC 8 full level

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